

# Georgia Department of Natural Resources

Environmental Protection Division • Air Protection Branch

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Mark Williams, Commissioner

F. Allen Barnes, Director

Tim Bassett, Manager  
Waste Management, Inc  
3001 South Pioneer Drive  
Smyrna, GA 30083

**Re: Application No. 20161, dated January 7, 2011**  
**Chambers R&B Landfill, AIRS No: 01100014**  
**Application For a Landfill Gas-To-Energy Facility**

Dear Mr. Bassett:

The Georgia EPD has reviewed the revised application dated 5/19/2011 and the RACT/ BACT/LAER Clearinghouse (RBLC) to determine emission rates and limits for BACT and modeling purposes. A worksheet developed during the review process is attached in Appendix A. The draft BACT emission limits are summarized in the table below and explained in the body of this letter.

Table 1:

Pollutant	Emission Limit	Anticipated Averaging Period
CO	2.75 g/bhp-hr	3-hour average
NOx	0.5 g/bhp-hr	3-hour average
PM, PM <sub>10</sub> and PM <sub>2.5</sub> (Filterable plus condensable particulate matter)	0.135 g/bhp-hr	3-hour average
VOC (includes formaldehyde)	0.52 g/bhp-hr	3-hour average
SO <sub>2</sub> - Non-BACT Limit This limit is for PSD Avoidance Purposes	1.52 lb/hr	NA

Carbon monoxide (CO) emission limit:

The Engine Manufacturers Gas Engine Technical Data Sheet quotes a nominal CO emission rate of 2.5 g/bhp-hr and a Not to Exceed (NTE) emission rate of 4.13 g/bhp-hr. The 2.5 g/bhp-hr emission rate only applies for the first 100 hours of operation. Although Waste Management proposed the NTE emission rate of 4.13 g/bhp-hr, the Georgia EPD selected 2.75 g/bhp-hr limit, which is consistent with emission limits for similar facilities listed in the RBLC. This is equivalent to a modeling emission rate of 17.05 lb/hr/engine.

Nitrogen oxides (NOx) emission limit:

Waste Management proposed an emission rate of 0.6 g/bhp-hr. The Engine Manufacturers Gas Engine Technical Data Sheet quotes a NOx emission rate of 0.5 g/bhp-hr. The Georgia EPD proposes an emission limit of 0.5 g/bhp-hr, which is consistent with emission limits for similar facilities listed in the RBLC. This is equivalent to a modeling emission rate of 2.46 lb/hr.

Particulate Matter (PM) emission limit:

Waste Management did not propose a numeric BACT limit. The Georgia EPD proposes an emission limit of 0.135 g/bhp-hr, which is consistent with emission limits for similar facilities listed in the RBLC. This is equivalent to a modeling emission rate of 0.848 lb/hr. The 0.135 g/bhp-hr emission rate is equivalent to the 22.29 tpy emission rate supplied in the revised application dated May 19, 2011. The numerical emission limit of 0.135 g/bhp-hr (or 0.848 lb/hr) is for Total PM, Total PM10, and Total PM2.5 where the term "total" includes both filterable and condensable PM.

Volatile organic compounds (VOC) emission limit:

Waste Management proposed an emission limit of 1 g/bhp-hr based on 40 CFR 60 Subpart JJJJ, which does not include formaldehyde emissions. The Georgia EPD proposes an emission limit of 0.52 g/bhp-hr, which does include formaldehyde emissions. This emission rate is equivalent to the 3.21 lb/hr emission rate proposed in the revised application dated May 19, 2011.

Sulfur Dioxide (SO<sub>2</sub>) emission limit:

Sulfur dioxide emissions are below the 40 tpy significance threshold and therefore not subject to BACT. For PSD avoidance, the Georgia EPD proposes an emission rate of 1.52 lb/hr. The 1.52 lb/hr emission rate is back-calculated using a 39.9 tpy emission limit.

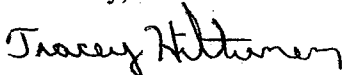
If Waste Management is in agreement with these proposed emission rates and limits, Georgia EPD expects the modeling analysis to be submitted 30 days after receipt of this letter, as stated in the revised application letter dated May 19, 2011. If there are any issues, we will do what we can to address the issues to reach an agreement as soon as possible.

If you have any questions or need more information, please contact:

Tracey Hiltunen at (404) 362-2522 or via email at [tracey.hiltunen@dnr.state.ga.us](mailto:tracey.hiltunen@dnr.state.ga.us);

Susan Jenkins at (404) 362-4598 or via email at [susan.jenkins@dnr.state.ga.us](mailto:susan.jenkins@dnr.state.ga.us);

Sincerely,



Tracey Hiltunen

Environmental Engineer

Stationary Source Permitting Program

c: Peter Courtney, Georgia EPD Planning & Support Program  
Susan Jenkins, Georgia EPD Stationary Source Permitting Program  
John Yntema, Georgia EPD Stationary Source Permitting Program  
William Apple, SAGE Environmental Consulting

## **Appendix A**